

**CAPE COD NATIONAL SEASHORE ADVISORY COMMISSION
TWO HUNDRED AND NINETY-SECOND MEETING**

HELD AT CAPE COD NATIONAL SEASHORE, Marconi Station
Area, Park Headquarters, South Wellfleet, Massachusetts, on
Monday, February 3, 2014, commencing at 1:06 p.m.

SITTING:

Richard Delaney, Chairman
Larry O. Spaulding
Edward C. Sabin
Tom Reinhart
Joseph Craig
William Clark
Mary-Jo Avellar
Mark Robinson
Maureen Burgess

Don Nuendel, alternate

Also present:

George Price, Superintendent
Kathy Tevyaw, Deputy Superintendent
Lauren McKean, Management Assistant
Osman Keshawarz (via telephone), Doctoral student, Report on
Pilgrim Nuclear Plant Emergency Planning Subcommittee
David M. Dunford, Selectman, Town of Orleans

Audience members

**LINDA M. CORCORAN
CERTIFIED COURT REPORTER
P. O. Box 4
Kingston, Massachusetts 02364
(781) 585-8172**

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1 P R O C E E D I N G S

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3 (Due to winter storm, the recorded proceedings did
4 not commence until 1:35 p.m. Prior to the commencement of
5 the recorded proceedings, the **Adoption of Agenda, Approval of**
6 **Minutes of Previous Meeting (December 2, 2013), and Reports**
7 **of Officers** were discussed and concluded.

8 The recorded proceedings commence with the **Reports**
9 **of Subcommittees** already in progress.)

10 * * * * *

11 REPORTS OF SUBCOMMITTEES

12 UPDATE OF PILGRIM NUCLEAR PLANT EMERGENCY PLANNING

13 SUBCOMMITTEE

14 MR. DELANEY: So I'm just going to ask Maureen to
15 do a very brief introduction to you and the topic, and
16 then I think you've worked it out that you may make some
17 comments. We have the report in front of us, and we'll
18 go from there.

19 So, Maureen?

20 MR. KESHAWARZ (VIA TELEPHONE): Sure.

21 MS. BURGESS: Osman, I'm going to put up your
22 executive summary.

23 One second. Little technical delay here.

24 MR. KESHAWARZ: Okay.

1 (Pause off the record.)

2 MR. DELANEY: We are ready to proceed officially.

3 MS. BURGESS: Osman, thanks for hanging in. I have
4 your executive summary up, and I'm just going to use
5 that by way of introduction so people can sort of get
6 oriented.

7 This report was done at the request of the
8 Subcommittee on Pilgrim Safety, and what it looks at is
9 the potential economic impacts. So that would be
10 potential economic impacts of an accident at the Pilgrim
11 Nuclear Power Plant on the communities of Cape Cod,
12 focusing chiefly on our key industries of tourism and
13 real estate. The impacts are estimated in this report
14 by sensitivity analysis with the boundaries based on
15 previous accidents.

16 So just by way of intro, some of the key findings
17 were that the economy of Cape Cod is highly dependent on
18 tourism with tourism and travel-related industries
19 consisting of 12 percent of our gross regional product
20 according to 2011 information. Real estate, especially
21 retirement and recreational, is also the major industry
22 with Cape Cod containing 8 percent of Massachusetts'
23 total taxable property wealth. Now, we also know that
24 tourism is highly vulnerable to changes in perception of

1 safety and security. In the case of an accident
2 generating high negative media coverage, such as
3 radioactive contamination, it is very likely that the
4 tourist industry would be heavily impacted for several
5 years. In case of an accident, there are 51 -- over
6 51,000 Cape Cod residents living in the 20-mile range of
7 the plant, and all 215,000 live within a 50-mile radius.
8 Now, the current emergency planning zone for Pilgrim
9 Nuclear Power Station covers ten miles around the plant,
10 but in the case of Fukushima, plumes of radiation spread
11 up to about 18 miles.

12 So just some final comments. The greatest risk of
13 the plant is that of an accident involving the spent
14 fuel pool which holds the highly radioactive spent fuel
15 rods, as we've spoken about, at higher and higher
16 densities due to the lack of a storage facility.

17 So in summary -- and Osman can go into greater
18 detail -- a small-scale release of radioactive material
19 could -- could result in an estimated 741 million to 1.6
20 billion loss of tourist expenditures and a loss in tax
21 revenue to the state of Massachusetts of 23 to 62
22 million over five years. In the case of a large-scale
23 disaster, Cape Cod is estimated to lose 2.2 to 12.1
24 billion in tourist expenditures and 45 to 71 billion in

1 output over ten years. This would likely cause a one to
2 one and a half percent contraction in Massachusetts'
3 gross domestic product, so the product of the entire
4 state, and possibly result in a recession.

5 So, Osman, I'm going to put the question to you.
6 When you were given this topic, how did you approach
7 analyzing it?

8 MR. KESHAWARZ: So the approach to this particular
9 study, it was really shaped by two difficulties that are
10 peculiar to this sort of analysis. The first is that it
11 suffers from a low sample size, and that means there's
12 not a lot to compare it to. I mean, the nature of
13 disasters is such that each one is basically -- is quite
14 different in response and effect. So especially nuclear
15 radiological disasters, there haven't been very many in
16 the history of nuclear power. It's such a new
17 technology. And the other one is that the response to
18 radiological disasters, especially in relation to
19 tourism, is extremely subjective. It all depends on
20 perception. Several of the studies that I've cited
21 indicated that the economic damage is largely
22 proportional to the amount of negative press coverage
23 that the event receives. So we see from the incident
24 going on in Brazil, it was not a huge disaster

1 comparatively speaking compared to Fukushima, but since
2 nobody had experience with radiological emergencies
3 before, the press coverage resulted in an extremely
4 significant reduction in tourist expenditures.

5 So my approach with this project was basically to
6 sort of establish boundaries, what has happened before
7 in other incidences regarding meltdowns or regarding a
8 general release of nuclear materials and use those to
9 create brackets in between which we can say the lowest
10 -- we'd establish a worst-case scenario and a best-case
11 scenario and be -- then take the parameters from those
12 incidents and apply them to Cape Cod, the population of
13 Cape Cod, the key industries of Cape Cod, which are, as
14 was said in the executive summary, tourism and real
15 estate.

16 So that was my basic approach. I set aside first
17 the effects on the major industries on Cape Cod as a
18 whole and then specifically, taking the lessons of the
19 evacuation at Fukushima, the more specific impacts,
20 seasonal impacts in the area of the disaster zone
21 surrounding the plant.

22 MS. BURGESS: Does anybody have any questions for
23 Osman?

24 (No response.)

1 MS. BURGESS: So with that as a little bit of
2 background, how would you characterize your main
3 findings? And if there's a specific page in your report
4 that you'd like me to put up, just refer to that page
5 and I will put it up.

6 MR. KESHAWARZ: Well, let's begin with the general
7 conclusions, and then we can go into the specifics as
8 you, you know, just take in the results.

9 So I basically analyzed two different scenarios
10 based on historical circumstances. There would be a
11 small-scale release of nuclear materials, and that would
12 encompass events like Three Mile Island or the Goiania
13 incident.

14 Losses to the tourist industry, you can actually
15 see these results beginning on page 23 of the report.
16 So the brackets that I've established, basically that
17 the tourism industry could lose between 682 million on
18 the low end and 1.7 billion over five years, depending
19 on the conditions of recovery and the nature of the
20 accident itself, and directly from the loss of tourist
21 expenditures, between 23 and \$42 million. That would be
22 in sales and income taxes, so that would be government
23 revenue that would be lost.

24 Estimating losses in property value is a little bit

1 tricky since it's a stock. It's not a flow of income
2 but rather a store of value that grows over time
3 depending on various factors. So I established sort of
4 very wide boundary conditions between a loss in property
5 values between 16.9 billion and 25 billion in the loss
6 of value, depending on how the evacuation procedure is
7 carried out, whether it's going to take a long time or a
8 short time and so forth.

9 In the case of a large-scale incident, which would
10 involve the total evacuation of the 20-mile radius, I
11 basically modeled this incident around the Fukushima
12 evacuation plan. The cost for the evacuation itself
13 would be between \$42.9 billion and \$59-\$60 billion, the
14 evacuation of about 50,000 people, and the destruction
15 of \$8-\$11 billion in property. Now, this is just the
16 direct effect. There are also potential indirect
17 effects, and by indirect effects I mean, for example,
18 the people that are resettled out of the Cape. They
19 will no longer be generating economic activity in the
20 Cape. They will no longer be spending their dollars
21 there, providing further revenues for businesses there.
22 It would be about \$1.6 billion in lost earnings.
23 Tourism revenues for the entire Cape itself would
24 decline by \$2.2 to \$12 billion over ten years,

1 depending, again, on mitigation efforts and media
2 perceptions and so on. So the overall decline in gross
3 regional product, that is, the total value output of all
4 goods and services of the Cape, would be between 45 and
5 71 billion as a conservative estimate.

6 Now, the major (inaudible) factor that I found is
7 the fact that the Bourne and Sagamore bridges both fall
8 under a potential area effect of any disaster at the
9 site, and what that means is that it's difficult to
10 predict exactly the effects of an evacuation there. It
11 might be the case that people are actually trapped
12 there. Now, this kind of event has not ever happened
13 historically. It's difficult to judge exactly what
14 would happen in that case. On the other side, if these
15 bridges, the only routes that bring residents to Cape
16 Cod, are blocked -- for example, we might have the
17 scenario in which the areas on the western part of the
18 Cape are evacuated but the eastern part of the Cape
19 where most of the recreational housing is located, most
20 of the tourism industry is located, that would still be
21 safe, although it would be still inaccessible via those
22 bridges. So that's sort of the reason for the very wide
23 boundaries on how we're getting the worst-case and best-
24 case scenario boundaries.

1 MS. BURGESS: Okay, so I have your table up showing
2 the percentage of homes that are seasonally occupied,
3 and so we can see that the ones on the eastern Cape,
4 especially the Outer Cape, tend to be more seasonally
5 occupied whereas the areas down around Bourne, Sandwich,
6 Falmouth, Barnstable tend to have more not only
7 permanent residents, full-year residents, but also
8 that's the area of primary business and industry. So
9 they lie closer to the bridges and closer to the
10 emergency planning zone, and especially if it was -- if
11 it was increased to 20 miles, those bridges are
12 definitely within that area and so are some of those
13 towns, correct? Are you there?

14 MR. KESHAWARZ: Oh, I'm sorry. Yeah, I just wanted
15 to sort of confirm that.

16 So the most vulnerable areas on the Cape are
17 actually the working populations of the Cape rather than
18 the visiting population and especially these areas where
19 the bulk of the economic activity on the Cape happens.
20 So in general this would be an extremely significant hit
21 to the economic activity of the Cape for the foreseeable
22 future if something were to happen. It's not as though
23 that life could sort of continue on because
24 geographically these locations provide all the vital

1 services and commerce to the entire county.

2 MS. BURGESS: That's right.

3 So does anyone have any questions for Osman at this
4 point?

5 MR. DELANEY: Question? Tom?

6 MR. REINHART: I think -- correct me if I'm wrong
7 -- the report said that the value of property on the
8 Cape is \$91 billion, was it?

9 MS. BURGESS: It's Table 1, Osman, total assessed
10 land values.

11 Is that what you're referring to, Tom?

12 MR. REINHART: I guess so, yeah.

13 MS. BURGESS: Yeah.

14 MR. KESHAWARZ: Right.

15 MR. REINHART: 74 billion? 75 at the top of the
16 accounting?

17 MR. KESHAWARZ: Yes.

18 MR. REINHART: So you're estimating that a serious
19 event would reduce land values up to \$12 billion?

20 MR. KESHAWARZ: Right.

21 MR. REINHART: So that's like 1/8? Say if
22 something happened, our property values out here would
23 go down only 1/8? I find that like really a low -- a
24 lowball figure. And it seems like the property values

1 nearer the bridges would be worth almost nothing. Who
2 the heck wants to live there if that happens?

3 MR. KESHAWARZ: Right, so the thing is, the reason
4 that that calculation looks that way is because most of
5 the high-value property is actually on the Outer Cape.
6 So they would be affected the least. The other thing
7 is, this is actually an estimate over time. So the
8 initial loss would be enormous. And eventually over
9 five to ten years, the growth rate of property values
10 would return to the previous level or near the previous
11 level. So if you could turn to Figure 6, I sort of
12 charted out on page 18 -- charted out the return to
13 baseline growth rates that would happen.

14 So there would be some irreversible property loss
15 -- you're absolutely correct in that -- in the area
16 depending on where radiation was happening or were it to
17 happen to fall. And you have to understand that my goal
18 in this analysis right here is to provide a conservative
19 estimate. I don't want to speculate on things like, for
20 example, which direction radiation will blow. Obviously
21 if radiation falls -- radioactive material falls
22 directly on the property, that property would be rather
23 worthless.

24 MR. REINHART: Yeah, okay. Thank you.

1 MR. KESHAWARZ: So actually if you look at the area
2 that the 20-mile exclusion zone covers versus the total
3 land area of the Cape itself, it's actually far less
4 than 1/8, and the loss in value would be outside -- out
5 of proportion to the actual coverage of the area
6 specifically because most of the loss of value would be
7 occurring in those areas. You also have to remember
8 that this is taking just into account residential
9 property values, not business values, which also depend
10 on the value of transactions occurring in those
11 businesses, which would drop to zero.

12 MS. AVELLAR: Could you repeat that?

13 MR. DELANEY: Tom, go ahead.

14 MR. REINHART: Well, I guess that's really open to
15 question. I know you did the best you can, but it is
16 pretty speculative as to how that part of it would play
17 out, if we're just talking about the economic part,
18 because, you know, you were saying that one of the
19 reasons why the economies recovered 20 years ago is
20 because the press was very different then. You know how
21 they are now. You light a match in a house and then
22 call and say the house is on fire.

23 MR. KESHAWARZ: Right.

24 MR. REINHART: It would be a major event of bad

1 publicity or impossible publicity, overblown.

2 Okay, thank you.

3 MR. DELANEY: Mary-Jo, did you --

4 MS. AVELLAR: No, I just -- it got clarified.

5 MR. DELANEY: Mark Robinson?

6 MR. ROBINSON: Osman, I haven't been reading my
7 homeowners policy recently. I don't know if there are
8 exemptions, exclusions for homeowner policies for
9 radiological events. Do you know? And how would the
10 overall insurance be handled for an event like this?

11 MR. KESHAWARZ: This is actually a legal question.
12 I'm not too familiar on insurance law, but from what
13 I've come across doing the research for this study is
14 that in a lot of places radiological accidents are not
15 covered. And you can buy -- I know within the 10-mile
16 zone I believe -- and don't quote me on this because I'm
17 not entirely sure -- you might be able to buy a separate
18 policy, but I think in a lot of areas this would be
19 considered out of policy.

20 MS. BURGESS: Yeah, I'll just jump in here too. An
21 interesting fact that I've come across, Osman, is that
22 these reactors like Pilgrim, who are run by
23 corporations, all the corporations are limited liability
24 corporations. So although they are required to carry

1 some insurance, if they were to become bankrupt, it is
2 no longer their problem. So they are what's called
3 limited liability, which literally means that they are
4 liable to some extent, but if they did not have the
5 money, then it would be passed on to the government and
6 the taxpayers to deal with the disaster.

7 MR. ROBINSON: I guess that was my point, that
8 we've seen in Hurricane Sandy and other things, the
9 government steps in where insurance leaves off. So
10 would it be useful to calculate the cost of government
11 for resettlement at least or buying down the housing
12 stock?

13 MS. BURGESS: Yeah, I think the other thing that
14 really we have to think about too, as Tom was saying,
15 are you really going to be able to come back? You know,
16 are you going to be able to come back to your house?
17 Are you going to be able to come back to your property?

18 MR. REINHART: Would you really want to?

19 MR. NUENDEL: Would you want to?

20 MS. BURGESS: So I'm putting up this slide. I'm
21 putting up Figure 7 rather, the visual -- 5, sorry. And
22 what this is showing is these -- I thought this was
23 interesting. Here is the 10-mile emergency planning
24 zone, which is all that Entergy is required by the NRC

1 to plan for. And I'll just point out some things to you
2 here.

3 So the evacuation for folks from Plymouth takes
4 them to a reception center at Taunton High School. The
5 evacuation of people from Duxbury (sic) takes them to
6 Bridgewater State College. And the evacuation of people
7 from -- it looks like Duxbury takes them to Braintree
8 High School. So my question when I look at this is,
9 then what? Then what?

10 MR. REINHART: It's nonsense.

11 MS. BURGESS: What happens? Is there any
12 provision? Has there been really a drill to do this?
13 You know, these people may never go back in a Chernobyl-
14 type disaster. So that's just something that I noticed.

15 MR. KESHAWARZ: We actually see in the case of
16 Fukushima actually there's a significant number of
17 people who are unable to return because the towns that
18 they live in are still under mandatory evacuation
19 orders. Now, this ties in with the question that the
20 gentleman just asked, is how do we factor in the cost to
21 the government in case Entergy, for example, were to go
22 bankrupt and be unable to pay off whatever liability it
23 may undertake. So you can consider the cost that I've
24 calculated in the study as sort of the cost to the

1 government. For example, the government has to
2 compensate people for lost wages. That's what's going
3 on. Or at least that is the plan of compensation in
4 Fukushima. Whether it is being undertaken effectively
5 is a different story. But the political side of that is
6 that you compensate for lost wages; you compensate
7 business owners for the loss of their facilities and the
8 loss of profits that would have been gained during the
9 time in which they had to be evacuated. From a
10 macroeconomic perspective, it doesn't matter where that
11 money comes from. That money is going to come out of
12 somewhere, whether it's Massachusetts state general
13 revenue, whether it comes from tax revenue. So \$10,000
14 required to pay for compensation is \$10,000. You know,
15 you have to get it from somewhere, is what I'm saying.

16 MR. DELANEY: Question? Larry, please?

17 MR. SPAULDING: Osman, it seems clear that with
18 your conclusions about the tourism industry -- we're
19 here in the National Seashore, and we depend on tourists
20 for various fees that come back for the operation of the
21 Seashore -- that you might be able to carry that
22 analysis further in a general sense as to what's going
23 to happen to the Seashore if we don't have those tourism
24 dollars to maintain some of the programs and actually

1 operate the Seashore. I know the government can always
2 come up with some of that excess, but in this economy
3 you don't know if that's going to happen. I assume you
4 could do a further analysis to say: What is the impact
5 on the Seashore if this happens?

6 MR. KESHAWARZ: There are actually several
7 significant effects with that. So there's impact on
8 fisheries that would go on. That would require a study
9 a little bit beyond the scope of this one because that
10 involves researching, for example, the effects on the
11 biodistribution of radioactive material throughout the
12 food chain. But you're absolutely right that it would
13 have a significant effect on the ability of the National
14 Seashore to fund its own operations, depending on how
15 long -- so here the difficulty is we have no way of
16 telling as of now how long the Seashore would remain
17 operational after a disaster of this magnitude. For
18 example, the tourist areas in Fukushima actually
19 experienced up to an 80 percent decline immediately
20 after the disaster, and most are still not even at their
21 full level yet, especially -- these are areas that had
22 no experience with radiation whatsoever.

23 MR. REINHART: You just wear a hazmat suit on your
24 vacation.

1 MR. DELANEY: A question from the superintendent,
2 George Price.

3 MR. PRICE: Osman, this is George Price. Can you
4 hear me?

5 MR. KESHAWARZ: Yes, I can. Nice to meet you,
6 George.

7 MR. PRICE: Nice to meet you, and thank you very
8 much for the work you did on this report. Before I ask
9 my question, let me just ask you to clarify again. Did
10 you say that the experience in Japan was some of the
11 tourist areas experienced an 80 percent drop even though
12 they were not affected by radiation?

13 MR. KESHAWARZ: Right, just the association with
14 being in the same (inaudible).

15 MR. PRICE: Right, right. Well, one of the things
16 that I appreciated with your report was the economic
17 focus, specifically on tourism and real estate. And
18 from where I sit, there are really three major themes,
19 and since I've been here and I've heard about the issues
20 with Pilgrim and the concern, I think the overwhelming
21 one has really been the public health piece of this.
22 It's kind of obvious to people that if there's radiation
23 exposure, then that's what everybody's very concerned
24 about, both for themselves and their families. I'm

1 obviously concerned about that on the Outer Cape because
2 we bring over, you know, four to five million visits a
3 year, so if something were to happen during the height
4 of the season, we have a lot of people, plus we have a
5 lot of staff. So obviously that's our responsibility.
6 So that's the public health and safety piece of this.

7 Another aspect of the public health and safety is
8 what you just were talking about with Maureen, and that
9 has to do with the lack of an evacuation plan for the
10 Cape itself. Now, I actually am not current, but if you
11 recall, I think it was a year or so ago we invited the
12 fellow who was the chair of the public safety evacuation
13 piece, and he was informing us that the plan was
14 actually to shut the bridges down because all the roads
15 were going to be clogged with the evacuation from the
16 Plymouth area. And I think that was news to a lot of
17 people, that a lot of people weren't aware of that. So
18 I put that all in the public safety -- health and safety
19 realm.

20 MR. KESHAWARZ: Right.

21 MR. PRICE: Your report focuses on the economic
22 piece, and I think this is terrific and this is
23 something that I'm interested in sharing with my other
24 National Park colleagues because there are a lot of

1 National Park units that are in similar situations, not
2 too far from nuclear plants.

3 And then the third piece of this, which I think
4 falls further down on Maslow's hierarchy of needs chart
5 but it's really a major concern of the National Park
6 managers, is that we're all about the health of our
7 natural resources, our flora and fauna. And you were
8 just starting to allude how this will affect the fishing
9 industry from an economic point of view. We're all
10 critically concerned as to how it will affect the health
11 of at least the flora and fauna within the 44,000 acres
12 because, as we've learned with our other studies having
13 to do with deposition of heavy metals and that sort of
14 thing, it has a long-lasting impact on our resources out
15 here.

16 So I think it's probably a painfully obvious
17 concern, but at least from my mind, where I'm sitting
18 it's almost like three tracks. So the economic track we
19 might get a lot of attention and focus on because a lot
20 of people can relate to that. It directs their
21 pocketbook. A lot of people are obviously concerned
22 about the health and safety because that affects
23 themselves, friends, and family. And then I just wanted
24 to put on the table to make sure everybody knows from

1 the National Park concern we're also talking about the
2 health of our critical natural resources, which is one
3 of the reasons the Park was established, because this is
4 such a special place. And whether it's our ponds, our
5 wetlands, our upland area, it really is here to be
6 preserved for future generations, so obviously major
7 radiation deposition would have a major effect on those
8 resources.

9 MR. DELANEY: Good, thank you.

10 Other questions or comments?

11 MS. BURGESS: I have one, Osman. Do you feel that
12 the results of the paper that you presented here for us
13 have implications for other areas that could be impacted
14 by a disaster at Pilgrim, for example? We're -- if you
15 make a quadrant, we're in the southern quarter of that
16 360-degree circle, but what if the wind instead of
17 blowing south towards us blew north?

18 MR. KESHAWARZ: Right, so the -- for example, the
19 Town of Plymouth itself, that is obviously going to be a
20 major, major disaster area in case anything happens, but
21 my -- the areas that I -- so even outside of the 20-mile
22 disaster zone, the important thing to watch out for is
23 oceanic contamination that reaches Boston, and that
24 would be pretty significant in terms of not even the

1 direct health sense but the evacuation, the loss,
2 especially with sea trade and seafood that would occur
3 in the bay.

4 If the wind were to go north, I haven't done too
5 much study on the geographic areas outside of Cape Cod.
6 I focused mainly on the Cape itself, but the area of
7 Plymouth is a heavily populated area. If you turn to --
8 I don't know if you can quite see it on the projection
9 -- page 19, I created a population density map of the
10 areas around the plant itself, and you can see that
11 within half that 20-mile radius are relatively heavily
12 populated areas. So really if this plume were to blow
13 in any direction that's not directly out to sea -- and
14 even then that would be fairly dangerous -- there would
15 be significant health impacts. The impact on tourism is
16 -- at least in Plymouth, it would be just as severe.
17 Further to the north I'm not so sure of.

18 MS. BURGESS: Or to the west. I mean, I just
19 recall I was at a conference at the State House in
20 October, and one of the speakers was Mr. Naoto Kan, who
21 was the prime minister during the Fukushima disaster,
22 and he said that so many unanticipated things happened.
23 For example, they had simulation software at the
24 government headquarters in Tokyo which should have given

1 a speedy indication knowing which way the plume would go
2 based on wind direction, but as I recall, one of the
3 problems was that no one had really used it before, and
4 so they were unfamiliar with it. And in Fukushima
5 another problem was that their operations center that
6 they were going to pull everybody together with to deal
7 with such a disaster was only three kilometers away from
8 the plant itself, and because of that, they were
9 actually within the contamination area, and so people
10 could not go there for that reason and also because the
11 electric lines were down.

12 So maybe this is a good time to talk a little bit
13 about beyond design bases.

14 MR. KESHAWARZ: Right, yes. The design basis is
15 sort of the industry term for in engineering any
16 systems. It's overengineered to an extent so that
17 foreseeable flaws or foreseeable adverse events can be
18 handled. Then we have what are known as beyond design-
19 basis events, things that cannot be predicted and
20 accounted for in the engineering of the system. The
21 megathrust earthquake in Japan was one of these beyond
22 design-basis events. The Fukushima reactors were not
23 designed to take a tsunami of that magnitude. Nobody
24 thought that something like that could happen. The

1 problem with that is that these sorts of disasters,
2 especially large-scale radiological disasters, are by
3 their nature difficult or impossible to predict since so
4 much of it is bound up in climatological factors and
5 geographical factors that are extremely complicationally
6 intensive. And so that's one of the reasons that I
7 chose to focus this study mainly on the economic
8 impacts, is because it's extremely difficult to predict
9 what the weather is going to do on any given day.
10 That's why there was such a chain of bad decisions in
11 the Fukushima disaster response. Most of the climate
12 models they were using predicted, you know, maybe a 10-
13 mile dispersal at most. When there was a wind that
14 first carried the radiation plume out over the ocean, in
15 the following few days it actually blew it back over
16 land dispersing it much further.

17 So in the case of a beyond design-basis event, the
18 reactor is simply not designed for that. And it goes
19 back to the questions of insurance. They're not written
20 to take into account these factors.

21 MS. BURGESS: Thank you.

22 MR. DELANEY: Thank you.

23 Any other thoughts or questions from members of the
24 Commission?

1 I just want to go back. Just quickly as almost an
2 aside or a follow-up to the loss of property value data
3 that you present, Osman, I know a couple -- I understand
4 a couple of the local banks here on the Cape are
5 beginning to think a little bit more about what kind of
6 a financial hit they would take. I think it's inherent
7 -- maybe it's not. Maybe it's part of your numbers, but
8 of course, there's the immediate loss of value in heavy
9 hit areas close to the plant and eventually, as you
10 suggest, some regaining of value over time, but in that
11 interim period, there will be banks that will be holding
12 onto a lot of mortgage money that could have all kinds
13 of complications.

14 Did you come across studies that other banks had
15 done, or is that incorporated in your thinking? Did you
16 want to comment on that at all?

17 MR. KESHAWARZ: Right. So the effects you're
18 talking about are indirect effects, you know, the banks
19 that have monies tied up in mortgages and then some of
20 these mortgages become worthless, which results in
21 basically balance sheet problems for the banks, and
22 small banks might even result in failure. I did not
23 take that into account in the study, and mostly because
24 data for that is mostly private. It's in the hands of

1 banks themselves. You know, what does that exactly mean
2 (inaudible)? They use that as part of their own risk
3 assessment. But the effect that you're talking about is
4 real and it is a possibility. It goes more into the
5 banking industry's decision to offer loans, interest
6 rates on -- I mean, you would generally see -- if banks
7 were to perceive a greater fear of some type of event
8 like this happening, you would see a rise in interest
9 rates for mortgages in potentially -- potential areas in
10 the impact zone.

11 MR. DELANEY: Interesting, yeah. Well, I believe
12 they're more aware of it now then. With the increased
13 focus that we've all had on this power plant, they like
14 the rest of us are much more focused on all the various
15 implications.

16 Okay, getting close to I think the end of this
17 session.

18 Maureen, do you want to make another comment?

19 MS. BURGESS: No, I just put up the summary page
20 which talks about the direct impact to Massachusetts'
21 tax revenue over ten years is a loss of \$4 to \$7 billion
22 and that taken together there could be a drop in gross
23 regional product between 45 and 71 million over ten
24 years. So those are pretty big numbers.

1 Anything you wanted to add, Osman?

2 MR. KESHAWARZ: No, I believe that -- I hope the
3 numbers stand for themselves. I mean, I was surprised
4 myself when I ran these calculations.

5 MR. DELANEY: Good. Well, you've helped us
6 accomplish what we had hoped to, as we state on the
7 front page or you state on the front page of the report,
8 that this was prepared to help us promote discussion and
9 encourage public participation in this topic. So you've
10 helped us immensely. Thank you very much for great
11 research, and if you happen to get down this way to the
12 Cape during the summer or any other time, please drop by
13 the National Park and visit us.

14 MR. KESHAWARZ: Thank you very much. I plan to
15 actually as soon as this weather clears up. I'm
16 standing outside, and it's a blizzard out here.

17 MR. DELANEY: Yeah, we're getting some snow too.
18 So pick a nice warm, sunny day.

19 MS. AVELLAR: Thank you.

20 MR. KESHAWARZ: I hope to. Thank you very much for
21 this opportunity.

22 MS. BURGESS: Thank you, Osman.

23 MR. DELANEY: Thank you.

24 MR. PRICE: Thank you.

1 MS. AVELLAR: It's wild.

2 MR. DELANEY: So I think the only real issue that
3 -- or the action, unless there's more discussion, is for
4 us to officially accept the report.

5 MS. AVELLAR: So moved.

6 MR. DELANEY: It's moved. Is it seconded?

7 MR. REINHART: Second.

8 MR. DELANEY: Okay, second.

9 MS. AVELLAR: It's hard to believe that they're
10 going to put the entire population of Plymouth,
11 Massachusetts, in Taunton High School.

12 (Laughter.)

13 MR. ROBINSON: Just for a few months.

14 MS. AVELLAR: What were they thinking? This is so
15 absurd.

16 MR. DELANEY: Any other discussion? Maureen?

17 MS. BURGESS: I just wanted, Rich -- you have
18 before you -- there's an errata page, and when I was
19 going over it last night and I spoke with Osman, we
20 realized that there were a few corrections that should
21 have been made that might not be on your hard copy. So
22 Lauren has provided those three pages. They're
23 basically page 7, 11, and pages 23 and 24, four pages
24 actually. So just to be aware in case you found those

1 tables confusing that those corrections have been made.

2 MR. DELANEY: Okay. Mark?

3 MR. ROBINSON: I think as great as it stands and
4 whatever I think about economic studies, it just can
5 blow up forever and ever because depending what you want
6 to study. But I think there are a lot of indirect
7 effects, economic effects. It's impossible to handle in
8 this. So these are more direct effects, but we talked
9 about government bailout of homeowners. I mean, that's
10 bound to happen. Look at Sandy. Banks collapsing.
11 There are lots of other things, unintended consequences
12 that can't be focused on here, but we should make it
13 clear to people that this is just looking almost -- I
14 hate to say narrowly because it includes the Cape as a
15 whole, but there are lots of other factors.

16 MR. DELANEY: Yeah, pretty much direct effects as
17 he says here.

18 So there's a motion on the table, and it's seconded
19 to accept the report. And what that means is we would
20 put it on our website. It would be available for
21 distribution for those who are interested, and we would
22 use it for our future discussions, and any future
23 positions we'd take on this issue we might use this as
24 our -- sort of our research documentation.

1 Mary-Jo?

2 MS. AVELLAR: Quick question. If we accept it, is
3 this going to get directly sent to, say, Sarah Peake and
4 Dan Wolf and Governor Patrick so that they know that
5 we've had this report done and these are the findings
6 and we're extremely concerned?

7 MR. DELANEY: We can. We can decide to do that
8 proactively, but I know all of them have already
9 requested copies of it should we accept it. So it will
10 go to both Senator Wolf and Representative Peake.

11 MS. AVELLAR: And Representative Keating. He's
12 going to the first one to get zapped if he's home in
13 Bourne that day.

14 MR. DELANEY: George?

15 MR. PRICE: If you're interested, you could ask me
16 to distribute it, and I'd make sure it got mailed out.

17 MR. DELANEY: So would you like to make that
18 request?

19 MS. AVELLAR: Part of the motion.

20 MR. DELANEY: That's part of the motion.

21 MR. ROBINSON: And the chambers of commerce.

22 MS. AVELLAR: Oh, yeah.

23 MR. DELANEY: So the motion now stands we will
24 accept gratefully the good research done by Osman, and

1 we will request that the superintendent distribute this
2 through his typical channels to our elected officials,
3 other interested parties, and maybe in particular
4 chambers of commerce.

5 MR. ROBINSON: Well, and the banks certainly.

6 MR. PRICE: I'm thinking I was offering to do the
7 delegation, state delegation.

8 MR. ROBINSON: Right, I understand.

9 MR. PRICE: And then we would post this on the
10 website for the world, but the question is how to let
11 them know it's there, I guess.

12 MS. BURGESS: Is it appropriate to share it with
13 the press in a PDF, or is it --

14 MR. PRICE: Once it's on the website, it's public
15 information.

16 MS. AVELLAR: The press is here too. Somebody's
17 here.

18 MR. ROBINSON: I think we could have a cover letter
19 from you as chair, Rich, to get it out more to the
20 economic sectors, the banks, the Board of Realtors. I
21 mean, there are other things besides the chambers.

22 MR. PRICE: Well, that's the other opportunity, if
23 the cover letter comes from you.

24 MR. DELANEY: Yeah. Okay, so --

1 MR. ROBINSON: Maybe the committee could come up
2 with a list of those contacts, addresses and e-mails and
3 things.

4 MR. DELANEY: Okay, so far we have the acceptance
5 through the traditional cc's that the superintendent
6 will put on his letter, the delegation and local
7 officials, and then a suggestion that the committee,
8 Maureen's subcommittee utilizing a cover letter from me
9 distribute it to other interested parties as you see
10 fit.

11 MS. BURGESS: Okay.

12 MR. DELANEY: Banks, chambers, interest groups.

13 MS. AVELLAR: Communities, the six towns within the
14 -- oh, maybe all the boards of selectmen on the Cape.

15 MR. DELANEY: (To Mr. Price) Are those part of
16 your doing this?

17 MR. PRICE: (Shakes head.)

18 MR. DELANEY: No? Okay, I'm going to ask Dave
19 Dunford if he has a suggestion to help us.

20 MR. PRICE: I would send it to the chair of the
21 board of selectmen of the six towns.

22 MR. ROBINSON: There is a county selectmen's
23 association.

24 (To David Dunford) Are you the chair of that?

1 AUDIENCE MEMBER (DAVID DUNFORD): I was.

2 MR. DELANEY: Dave Dunford.

3 AUDIENCE MEMBER (MR. DUNFORD): I was. I'm on the
4 executive board, if I may, Mr. Chairman.

5 MR. DELANEY: How could this be helpful?

6 AUDIENCE MEMBER (MR. DUNFORD): It will be very
7 helpful. I think it's an excellent study, and I think
8 it would be very helpful. We're actually meeting at the
9 end of next week on Friday, the 14th, I guess, to have
10 our monthly meeting, the Cape Cod Selectmen and
11 Councilor's Association, and depending upon the timing
12 of when all this would be available, I think it would be
13 very helpful to have a couple hard copies that are
14 there. And if it's going to be on a website, that can
15 be discussed and announced at that meeting. So that
16 would be a good forum for that.

17 MR. DELANEY: Okay, Larry?

18 MR. SPAULDING: Well, I'm giving him a ride home,
19 so with the approval of the Commission, I'll just make a
20 couple of copies when I get to the office and give them
21 to him, if that's okay.

22 MS. BURGESS: I just wanted housekeeping. So the
23 hard copy that you have now has to have these changes in
24 the pages or it will be incorrect. And even the PDF. I

1 sent you a new PDF. So, you know, the more you read it,
2 you pick up little details and you make corrections. So
3 I just want to make sure that you have the hard copy
4 that's totally correct. You might want to substitute
5 those pages.

6 MR. PRICE: Well, just for clarification then, is
7 there a copy with the errata changes made?

8 MS. BURGESS: No, you just have your loose pages,
9 but we can certainly print some up.

10 MS. McKEAN: Late breaking.

11 MS. BURGESS: Late breaking.

12 MR. PRICE: It's just that it seems like that ought
13 to be the copy that gets distributed and posted on our
14 website.

15 AUDIENCE MEMBER (MR. DUNFORD): Whenever it's
16 available. We meet monthly.

17 MS. BURGESS: Fortunately I caught Osman before the
18 Super Bowl last night.

19 MR. DELANEY: So we will have on our website the --

20 MS. BURGESS: Yes, the PDF.

21 MR. DELANEY: And as I understand it, it's 75
22 billion instead of 73 billion?

23 MS. BURGESS: Yes.

24 MR. DELANEY: That's the numerical correction.

1 MS. BURGESS: Yes.

2 MR. DELANEY: And what are the other two
3 corrections?

4 MS. BURGESS: So on your hard copy page 7, it now
5 is in tandem with the table which says 74 billion and
6 change. So page 7 is corrected from 73 to 75. Page 12
7 had a somewhat fragmented citation regarding the -- it
8 was from NOAA, and it was called Japan's "harbor wave."
9 So we just cleaned that up. And then on pages 23 and
10 24, you might have some errors in years over losses, so
11 we cleaned up pages -- Tables 5, 6, and 7.

12 MR. DELANEY: So those would be important to have
13 corrected as well?

14 MS. BURGESS: Yeah, they should be corrected.

15 MR. DELANEY: Okay, so there will be a final
16 corrected version on the website and distributed again
17 via Maureen's committee to us in a PDF, and then that
18 will be the document that we'll ask the superintendent
19 to get out to the elected officials list, and then he
20 also can distribute to the press, other associations,
21 and interested parties.

22 MR. ROBINSON: I'll volunteer to draft the cover
23 letter for you.

24 MR. DELANEY: Would you? Seriously?

1 MR. ROBINSON: Yes.

2 MR. DELANEY: Thank you. That would be great,
3 Mark.

4 MS. BURGESS: Oh, and if we -- I think I've
5 expressed this to Rich, but anywhere that we post this,
6 whether it's electronic or hard copy, it should be noted
7 that this paper was prepared for the Advisory Commission
8 of the Cape Cod National Seashore to promote discussion
9 and encourage public participation in this topic. I've
10 been advised by Professor Boyce, Osman's advisor, that
11 that is a very important legalese statement to make, so
12 we have to be careful that that goes with. It's on the
13 cover page of the hard copy, and it would be on the PDF,
14 but if it was posted in any other manner or described,
15 that statement is important.

16 MR. DELANEY: Yeah. And to continue to put this
17 into context, Osman is a doctoral student.

18 MS. BURGESS: That's right.

19 MR. DELANEY: This is an analysis. It has not been
20 peer reviewed by eminent economists, so it's in the
21 vernacular I think called grey literature, not peer
22 reviewed, but it's still a good piece of work. It could
23 be challenged by somebody.

24 MS. BURGESS: Absolutely.

1 MR. DELANEY: But he did his best analysis that he
2 could to try (inaudible) resources that he's been
3 trained as a doctoral economist.

4 MS. BURGESS: Yeah, we saw it as a preliminary
5 study, and once it's out there, you know, people can
6 react negatively, positively. It might want to spur
7 somebody to do further study.

8 MR. DELANEY: Okay.

9 MR. ROBINSON: I think you could challenge
10 individual numbers, but I think the impact is
11 unchallengeable.

12 MR. DELANEY: Yeah.

13 MR. SPAULDING: Are we still working on the motion?

14 MR. DELANEY: We're still working on the motion.
15 Thank you.

16 We may have a vice chair in the making over here.

17 (Laughter.)

18 MR. DELANEY: So is that convoluted motion
19 understood by everybody? I'm not going to repeat it
20 again.

21 MS. AVELLAR: No, me either.

22 MR. DELANEY: All those in favor, signify by saying
23 aye.

24 BOARD MEMBERS: Aye.

1 MR. DELANEY: Those opposed?

2 (No response.)

3 MR. DELANEY: Those abstained?

4 (No response.)

5 MS. AVELLAR: Thank you, Maureen, very much.

6 MR. DELANEY: Yes, and hats off to Maureen and the
7 subcommittee, all of you who participated. That's been
8 great.

9 And I'm sorry to report this is not going to go
10 away. This is not the end of this study. So we will be
11 talking about this again, but just as sort of a
12 commentary -- and, Maureen, I think -- did you include
13 some quick recap of other events going on somewhere in
14 your notes?

15 MS. BURGESS: Yes, you have a packet that I made up
16 for you, and would you like me to do that little recap?

17 MR. DELANEY: Well, I think -- I just want to bring
18 people's attention to it because if you look at this,
19 you will see and you will know -- we all know that there
20 is a lot of activity around nuclear -- Plymouth right
21 now with shutdowns and challenges and water pollution in
22 Cape Cod Bay potentially with a discharge pipe that my
23 scientists are monitoring because -- and lapsed permits,
24 an EPA natural pollution discharge permit that is 18

1 years out of date, hasn't been renewed. Lots and lots
2 of growing issues. And some commentators I believe are
3 now thinking the weight of evidence and problems
4 attached to this plant is growing to make it perhaps the
5 top one on the list for being closed eventually. It may
6 not be this year or next, but it could be a lot sooner
7 than the 40-year license that we feared when it came up
8 two years ago.

9 Not reading through all of them, but just a comment
10 or two?

11 MS. BURGESS: Oh, just some recent events that were
12 reported just this month. One last month, 1/24, five
13 security violations rated by the NRC itself as being
14 high. On January 18 water leaks around the reactor with
15 very high radioactive tritium levels; 12/8, a shutdown
16 due to a steam leak valve and a quote from the Union of
17 Concerned Scientists saying that Pilgrim Nuclear Power
18 Station now leads the U.S. fleet of 100 reactors for
19 shutdowns. Earlier there was a steam valve leak in
20 December.

21 I counted going up until December 4 -- I counted
22 seven previous glitches in shutdowns during 2013 and two
23 other events this summer. July 15 there was a loss of
24 control room alarms and then one that we discussed at

1 our previous meeting in July 16. The seawater in Cape
2 Cod Bay was too warm to be used to pump in to cool the
3 water that surrounds the rods in the reactor and the
4 spent fuel pool. So that was a first. The water in the
5 bay was too hot even to be used for the cooling, which
6 is absolutely essential because of the degree of decay,
7 you know, during this fission process and the amount of
8 heat that's generated.

9 MR. REINHART: So what did they do?

10 MS. BURGESS: They changed the threshold. The
11 threshold was 75, and they raised it a few degrees. And
12 fortunately the water temperature came down in a couple
13 of days.

14 MR. NUENDEL: Yeah, but I think what they have to
15 do is decrease power when it's like that, to do
16 something with that. It's been a while since that
17 article was out.

18 MS. BURGESS: Perhaps you're right.

19 MR. NUENDEL: Yeah.

20 MR. DELANEY: Okay, last comment on this, and then
21 we're going to finish the agenda.

22 MS. AVELLAR: I did get a notice in the mail from
23 the Town of Provincetown that potassium iodide tablets
24 are now currently available.

1 MR. REINHART: Oh, great.

2 MS. AVELLAR: But I have to call the board of
3 health and make an appointment.

4 MS. BURGESS: Yeah, every town got them, so just
5 make an appointment and go, go and get those.

6 MS. AVELLAR: They sent it out on neon-colored
7 paper.

8 MR. REINHART: Get under your desk.

9 MS. BURGESS: Right, right.

10 MR. DELANEY: That's right. Quick, take your pills
11 and climb under your desk.

12 MR. REINHART: Yeah, exactly.

13 Somebody told me at a party this weekend that when
14 they were looking into this enabling legislation to get
15 people to build power plants, they had to -- just to get
16 people to build them in the first place, they had to
17 give them almost no liability for any disasters or
18 anything. So I think there's even less liability with
19 these than other power plants or other things that are
20 -- you know, big projects that are built.

21 And we didn't talk about the pools that much, you
22 know, the cooling pool that has 3,800 rods in them
23 that's designed for 800.

24 MR. DELANEY: Yeah.

1 MR. REINHART: It just seems kind of absurd, the
2 whole thing.

3 MR. DELANEY: No, it does. Osman's report alludes
4 to that. He mentions that towards the end as a side
5 issue, but that's a huge one. Absolutely.

6 Okay, let me just check back -- Superintendent,
7 were there other items on the shorebird, or did you
8 cover everything that was important?

9 MR. PRICE: No, that's all the hot news I had
10 unless anybody had any questions.

11 **OLD BUSINESS**

12 MR. DELANEY: Then let me go to Old Business.
13 Yes, Tom?

14 MR. REINHART: I was at the Nauset Beach and saw
15 the stairs that you guys built last year.

16 MR. PRICE: Those at Light Beach?

17 MR. REINHART: Yeah. I don't know what they cost,
18 but I couldn't help but think, is that a good idea to
19 build a structure like that after we've had a 20-foot
20 washout? And now it sounds like some of it's destroyed.
21 And I was wondering why you would build something that
22 can't be just pulled back. And I think we talked about
23 that a little bit last year, but you're not thinking of
24 building another hard version of that after losing two

1 in two years, are you? Do the repair? I mean, it just
2 doesn't --

3 MR. PRICE: Well, I think a couple of things.
4 Number one, you're absolutely right. Basically the
5 tradition here was to build the hard stairs, and they
6 basically lasted three to four years. So it was really
7 chalked up as consumable construction. And last year we
8 built what we thought were going to be the stairs to
9 last, and the first storm this winter washed them out.
10 It was a heck of a storm. So the model that had in
11 place now doesn't make a lot of sense. Basically those
12 stairs cost about 120,000 bucks.

13 MR. REINHART: Yeah, that's unbelievable.

14 MR. PRICE: And several things have happened since
15 the Park Service evolved and would throw stairs out
16 there every year. Number one, the stairs that we put
17 out there are a lot more substantial than they used to
18 be. They used to be off of a straight shot. Now we're
19 making them a little bit more elaborate so that there's
20 a platform halfway down so that it's not a straight shot
21 both for accessibility, safety, and everything else.

22 The cost of putting the stairs has just increased
23 dramatically. Previously when I asked the question
24 about retractable stairs, they said, well, it was cost

1 prohibitive. So I think we're going to have to revisit
2 that to see what could happen. What might happen is we
3 might have a new type of design of stairs that we have
4 to pay for a crane to come in in the spring and pull
5 them out in the fall. The downside is that you don't
6 have year-round access at that particular beach, and it
7 puts in an overhead cost of bringing in a crane all the
8 time.

9 So we're going to be taking a look at a lot of
10 those options. But it's one thing to say every three to
11 four years you can invest this kind of money and you're
12 going to lose it, but it's another thing if it's every
13 year. So you're right. We're going to have to -- our
14 people are taking a look at it on our end as well.

15 MR. REINHART: The same sort of holds true with the
16 Provincetown problem. If you fixed it last year,
17 obviously it's just --

18 MR. PRICE: Well, we fixed it two years ago. It
19 was intended to be a patch because we had this permanent
20 fix in the works.

21 MR. REINHART: Yeah, yeah.

22 MR. PRICE: We still have the permanent fix in the
23 works. The question now is, how quickly would we be
24 able to get the funding to move ahead with the

1 construction?

2 MR. REINHART: Mark suggested about maybe something
3 even more temporary than blacktop, that people could
4 walk around that area if it were less expensive for now.
5 Because I mean, we could get another storm. We're not
6 out of the storm period yet. It could get worse.

7 MR. PRICE: Yes.

8 MR. REINHART: It just seems silly to do stuff that
9 doesn't work at all anymore. We ought to rethink it.
10 Things are changing.

11 MR. DELANEY: For sure.

12 Any other Old Business?

13 (No response.)

14 **NEW BUSINESS**

15 **PRIVATE LAND PROTECTION**

16 MR. DELANEY: Under New Business, Mark, could I ask
17 you to talk a little bit more about this project.

18 Some of you were with us this morning at 10 o'clock
19 at the Salt Pond Visitors Center, and in my remarks I
20 said I think this is one of the most important and
21 exciting new opportunities that Mark's Compact is
22 bringing to the Park Service. And I'll let him describe
23 a little bit more about the details, but he's really
24 trying to rally local conservation trusts to focus more

1 and more of the attention and efforts on Park inholdings
2 and properties adjacent to the Park. And it's so
3 timely. We've dealt with the two big mega mansions.
4 We've got 700 plus inholdings still sitting out there.
5 So this is a welcomed initiative coming from Mark's
6 Compact of Cape Cod Conservation Trust and a great
7 document.

8 And I'll just also say, not to steel any thunder,
9 Mark, but the Friends of Cape Cod National Seashore
10 stepped up to the plate and funded some or all of this.

11 So, Mark, can you tell us a little bit more about
12 it?

13 MR. ROBINSON: Well, just briefly it's intended to
14 engage private landowners both in the Park -- and there
15 are 600 private properties still in the park -- but also
16 generally landowners on the Lower Cape in and out of the
17 Seashore. And through a series of case studies, family
18 stories, and description of some of the tax benefits and
19 techniques that we use to help families preserve land,
20 hope that those in combination will encourage other
21 people to think about it and get in touch with our land
22 trusts or town open space committees, my organization
23 which supports them, as well as Park staff. I know that
24 the Park staff has been very helpful to several

1 landowners, one of whom the Falk family in here that we
2 highlight. We were able to save seven acres off South
3 Pamet Road with the Park Service staff.

4 So in combinations, team of land conservation
5 expertise -- experts is available here in the Cape,
6 particularly in the Lower Cape. You have land trusts
7 that are nonprofit in every town that have been up and
8 running for 30 to 50 years now and have a lot of
9 expertise. So we have towns with access to community
10 preservation monies to buy open space.

11 So the idea is over the next couple of years to get
12 this word out. We'll do some direct mailing with the
13 booklet. We'll have some forums, hope to be invited to
14 other support organizations. Somebody mentioned Nauset
15 Newcomers, which I hadn't been aware of. So the
16 Wellfleet Forum or the Truro Nonresident Taxpayers, any
17 of these groups that get together that I could be
18 invited to come and speak with the local land trust
19 representatives to just announce this availability. And
20 then what we really want to do is just very quietly with
21 private landowners having them invite us into their
22 kitchens and learn more about it. I had one woman come
23 up to me after this morning's session, so that was good.
24 We may have one new project out of the meeting. That's

1 great. That's all we can expect on a day-to-day basis
2 here.

3 So land conservation is not for every family, but
4 every family should be aware of the tools and techniques
5 and then determine whether it makes sense to them.

6 MR. DELANEY: Well, in about 20 minutes, my wife
7 Karen will be offering up your services at the Orleans
8 Pond Coalition because it dawned on her that pond
9 coalitions should be aware of all of these tools and
10 techniques because you protect ponds and water quality
11 by preserving open space. So there's another whole
12 network that you might like to end up being in front of.

13 And one of our own members, former members, Peter
14 Watts and his wife, Gloria Watts, are featured here.
15 They stepped up and designated or donated a conservation
16 restriction on a key piece of property and then had a
17 couple of other follow-up tax benefits come their way.
18 So there are some recent changes that I heard Mark say
19 this morning in the state tax law and federal law that
20 people really could avail themselves of, so it's a win-
21 win-win situation, financial win for the landowner, win
22 for the open space, and win for water quality or other
23 habitats.

24 So thanks, Mark, for watching that. I think it's

1 terrific.

2 MR. ROBINSON: Yeah, I'd like to thank you for
3 chairing the meeting, Rich, and the superintendent for
4 participating.

5 Both this booklet and a little 10-minute video are
6 on the home page of our website, thecomact.net. So if
7 you know somebody and you don't have immediate access to
8 the booklet, I'll always send it to them if you want me
9 to, but the PDF is on our website. They can look at it
10 through that way.

11 MR. DELANEY: Great. Keep us posted.

12 DISCUSSION OF NSTAR SPRAYING PLANS AND UTILITY RIGHT-OF-WAYS

13 MR. DELANEY: There's also under New Business a
14 discussion of NStar spraying plans and utility rights-
15 of-way. I think that was a leftover from our last
16 meeting, and I'm not sure any of us have an immediate
17 update. I know Senator Wolf announced recently there's
18 been a 45-day extension on part of it, but this is not
19 the end of this discussion either.

20 George, anything recently come across your --

21 MR. PRICE: No, I think that part of this came out
22 of the dialogue that was happening at the table where
23 people were asking about spraying within the Seashore
24 boundary and access and all that sort of thing. And one

1 of the things that's been mentioned previously that
2 people don't necessarily want to hear is that the Park
3 Service has approved that spraying on the Park Service
4 lands because of the techniques they were using and that
5 sort of thing. So even though it's not part of the
6 popular movement, at least twice over the time that I've
7 been here, we went through all the "*Mother May I's*"
8 because obviously the utility has the right-of-way. And
9 within that right-of-way, they have the right to
10 maintain it. And if they're going to do anything,
11 whether it's manual or spraying, they still need to work
12 with us, and they need to understand what the sensitive
13 sites and all that sort of thing.

14 So I know the people -- I think Howard Irwin
15 actually was still on the Commission the first time that
16 the approvals came through. So it's not part of the
17 Cape-wide desire, but it was something that at least
18 when I've gone through to find out if the Park Service
19 approved it, the answer was yes. So I think some of the
20 folks at the table didn't particularly like that answer.

21 MR. DELANEY: Mark?

22 MR. ROBINSON: I think I'm the one that brought it
23 up last time. I don't think it's they were questioning
24 the valuation. What I was suggesting is the more we can

1 encourage local groups -- and by that, I mean very
2 broadly any local group that's interested -- to be
3 available in very sensitive areas, near wetlands,
4 private wells, rare species areas to do manual hand
5 clearing. It's not appropriate for hundreds of miles of
6 right-of-way throughout the Cape, but in selected areas
7 I think it could be very symbolic and effective to show
8 that the Seashore is treating really sensitive areas
9 differently than the miles and miles of regular right-
10 of-way. I think it's really more of an opportunity
11 rather than a criticism.

12 MR. DELANEY: Good point.

13 Yes, Tom?

14 MR. REINHART: How do these decisions come down?
15 Do you go back to your headquarters and they tell you
16 the way you're supposed to play this, or is this your
17 decision to go along with the spraying? Personal
18 decision as superintendent?

19 MR. PRICE: No, anything that we would do that
20 would apply chemicals, we have to go to our Integrated
21 Pest Management office. And it's a professor -- it's at
22 the University of Pittsburgh that's actually the Park
23 Service Integrated Pest Management. So, for instance,
24 if we have an infestation in one of our buildings, we

1 actually have to present our problem and our recommended
2 solutions to them before they sign off on them. And
3 they may or may not sign off on it depending on the
4 material that's going to be used, or they may give us
5 another recommendation.

6 So when it was first brought to us -- because NStar
7 I think before it became a big cause celebre in the
8 news, they actually came to us and said, "This is our
9 plan for the right-of-way for the Seashore. We need to
10 package that up and send it to these scientists to
11 review." And they took a look at the material and the
12 application that was being recommended, et cetera, et
13 cetera, and then they sent us back either the approval
14 or the denial. So it's not us at all.

15 Lauren?

16 MS. McKEAN: And additionally they did have some
17 caveats, and that is in George's letter to them about
18 the not spraying within 200 feet of wetlands and low
19 humidity days. So there are some specifics that they
20 came back with, and it was because we did ask back for
21 some public questions. It was spraying for both public
22 and environmental, both -- both prongs.

23 MR. DELANEY: And do those conditions get then
24 passed back to NStar?

1 MR. PRICE: Yes.

2 MR. DELANEY: So you would approve it but with
3 these kinds of conditions?

4 MR. PRICE: Yes.

5 MR. REINHART: Now, does the -- I'll call them the
6 bureaucracy.

7 MR. PRICE: Now, by the way, the same thing is true
8 when and if they go in and do manual clearing. So, for
9 instance -- there's no press here anymore.

10 MS. BURGESS: No.

11 MR. NUENDEL: He left.

12 (Laughter.)

13 MR. PRICE: We actually fined one of their subs
14 because we had actually walked through with them for a
15 manual clearing in a particularly sensitive area that
16 was archaeologically sensitive, and apparently that
17 information was never passed through to the sub. Our
18 rangers found out and did a cease and desist. They did
19 an assessment of the damage, and they were given a fine
20 by us. And there was a discussion with NStar and
21 everything else about this is totally unacceptable. And
22 one of the reasons that NStar, by the way, originally
23 came up with the chemical clearing was because there was
24 so much grief over their manual clearing as it was

1 affecting the natural environment. It's not in the
2 Seashore but elsewhere by other conservations. So it's
3 a big, big concern, and it's a lot of area to keep clear
4 in order for their right-of-way to be maintained. So
5 I'm not trying to defend them or say, you know, "Poor
6 NStar," but the reality is it's a very complex
7 situation.

8 So whether it's the manual clearing or the chemical
9 clearing, yes, we need to do the approvals. So for
10 instance, if our Integrated Pest Management office, as
11 it did twice, because Howard Irwin and the rest of your
12 predecessors said this doesn't make sense -- we went
13 back and had them relook. They took a look at the
14 material and read all the information on it, and they
15 gave us their finding.

16 MR. REINHART: Well, is there any way to
17 communicate with them -- I know the citizens of
18 Wellfleet don't want it, and I think we had a vote.

19 MR. PRICE: That's different. That's different.

20 MR. REINHART: And it's going through our town,
21 and, you know, we're part of the Seashore. That's why
22 I'm sitting here today.

23 MR. PRICE: Right.

24 MR. REINHART: Why don't we get some sort of voice

1 in this? Like I don't really appreciate having somebody
2 in Pittsburgh say, "This is okay. Go ahead and do it"
3 when we don't want it. I mean, where does our voice get
4 to be heard in this sort of thing? And are these people
5 hearing that we don't want it? Are you communicating
6 that to them --

7 MR. PRICE: Yes.

8 MR. REINHART: -- that there's a lot of resistance
9 in the community to this?

10 MR. PRICE: But they're looking at the science, not
11 the politics.

12 MR. REINHART: Well, you know, that's not just --
13 there's more to it than that. There was a lot of
14 politics getting the Seashore established in the first
15 place.

16 MR. PRICE: Right.

17 MR. REINHART: It wasn't scientific. And so, you
18 know, there's a lot of diseases here and cancer and
19 things on Cape Cod where people are falling all the
20 time. You know, a lot of people think our environment
21 is really polluted, and we don't want to add to it
22 anymore if we can help it. I think we're going to try
23 to pass something to ban any sort of application of
24 herbicides and pesticides in the town. You know, people

1 are working towards that.

2 And I think the Seashore -- isn't that your policy?

3 MR. PRICE: No.

4 MR. REINHART: It isn't?

5 MR. PRICE: No, we have --

6 MR. REINHART: I thought you guys weren't using
7 that stuff. Your grass doesn't look like it's --

8 MR. PRICE: Well, we suspended that sort of
9 activity many years ago, but no, when we have -- in
10 fact, we've done selective herbicides on some of the
11 invasive plants, and it's been posted in the newspaper,
12 and we've put out information about it and all that sort
13 of thing. So the question is if it's being done
14 according to what's determined to be environmentally
15 safe, then we've done it. And we only do it with the
16 *"Mother May I's"* from the approvals from elsewhere, not
17 our own opinions.

18 MR. REINHART: Yeah, okay. I guess it's just hard
19 to have confidence in some of the principles that have
20 been laid down over the years and then where we're at
21 now. I mean, we've got all kinds of water problems and
22 pollution problems that we're working on and groundwater
23 things. It just seems counterproductive.

24 MR. DELANEY: We as a community have been telling

1 each other sole source aquifer, pristine through
2 everything possible. That's what we've all been
3 thinking about for years. You're right, Tom. So any
4 variation of that is a little bit sometimes hard to put
5 into context. I hear what you're saying, but then
6 George says that the science is the science. But then
7 sometimes we've seen some science doesn't always apply
8 here. I assume the Integrated Pest Management people in
9 Pittsburgh understand we're not just another regular
10 water supply; we're a sole source aquifer. So then you
11 have to --

12 MR. PRICE: And we're a national park, which is why
13 we're required to go to them for the "*Mother May I.*"

14 MR. DELANEY: Yeah, so it does get complicated.
15 Mark?

16 MR. ROBINSON: There's a wonderful video on the
17 *Cape Cod Times* website. They interviewed the manager of
18 the NStar spraying (inaudible) on a particular day, but
19 they went out and filmed it. And they showed the guys
20 with backpacks spraying the white spray on the small
21 pitch pines, but in the background -- I'm not sure they
22 meant that to be filmed -- but there's an open air Jeep
23 type of thing full of ten Jerry Cans of the herbicide
24 that he's delivering to the team. And it's jostling up

1 and down. I could see the whole thing tipping over as
2 it hits a rock, but anyway, my point is that it's not
3 just spraying. It's not just mowing. There are other
4 things that are time intensive, labor intensive.
5 There's not that much vegetation that really has to be
6 treated. There are pitch pines, none of which out there
7 have diameters any bigger than that (indicates), okay?

8 So we had a team of retirees, elder citizens in
9 Brewster that treated some of the right-of-way on the
10 conservation trust fund property, and with just hand
11 tools, we could take out the trees, we could take out
12 the roots. We left all the lowbush blueberry. We left
13 the Mayflower, all of the things that you should be
14 worried about getting mowed, and it can be done. And if
15 you take out the roots of these pitch pines, you don't
16 have to worry about them for another five years. After
17 five years now maybe there are some seedlings that you
18 can pull up by hand. There's stuff that we can do
19 that's in between. Again, we can't do it on hundreds of
20 miles, but there are places where we can do it that it
21 makes sense, that are sensitive. And it's the
22 opportunity that we're missing to show and to lead by
23 example that I'm concerned about.

24 NStar has a right -- a right on the right-of-way,

1 but the underlying owner of this property in this case
2 is the National Seashore. So the National Seashore has
3 the right to treat its property in a way that's
4 consistent with what NStar's trying to do without having
5 to do it NStar's way. At least that's what I'm trying
6 to get to.

7 MR. DELANEY: Yeah, yeah.

8 Mary-Jo?

9 MS. AVELLAR: And to further say, to agree with
10 Mark, I think that the conservation trust in all of our
11 towns would have more than enough volunteers that would
12 be willing to go out. I mean, we get them for the beach
13 cleanup at least in Provincetown on the town-owned side.
14 There's more than enough people.

15 MR. ROBINSON: Do they have an *Adopt a Highway* in
16 Wellfleet?

17 MS. AVELLAR: Yeah. I mean, there's more than
18 enough people I think that would be interested in
19 assisting. It's a way of making people stop using
20 Roundup, you know, and things like that if they can go
21 out and see how it can be done without.

22 MR. ROBINSON: We don't need NStar's permission.
23 We need your permission to treat a Seashore --

24 MS. AVELLAR: Yeah, that's what I mean.

1 MR. ROBINSON: -- right-of-way with volunteers and
2 hand tools. We could get the Nauset football team out
3 there volunteering as community service.

4 MS. AVELLAR: I mean, what about -- what is that
5 AmeriCorps, these people that come around all the time?
6 I mean, what do they do? I mean, I see them --

7 MR. ROBINSON: Come around all the time.

8 MS. AVELLAR: I mean, they sit in offices and type
9 --

10 MR. PRICE: No.

11 MR. ROBINSON: No, no.

12 MS. AVELLAR: Well, some of the ones I've seen, but
13 I don't know what they're doing in other towns.

14 MR. PRICE: You should see all the pond
15 improvements that they've done to help us.

16 MS. AVELLAR: We don't have that kind of stuff in
17 Provincetown, but I'm thinking that -- I mean, like this
18 report which was so informative today -- and I'm so glad
19 I came -- but this basically doesn't pertain to
20 Provincetown. You know what I mean? But I'm sure there
21 are people in the conservation trust who would be happy
22 to go out into Beach Forest and the bike trails and
23 stuff and pull these things out of the ground.

24 MR. DELANEY: All right, Bill? We are going to

1 have one or two more comments.

2 MR. CLARK: There was a group of well-meaning
3 individuals out pruning -- it was one of the right-of-
4 ways. I'm not sure which of the Lower Cape towns. But
5 they were removing vegetation and rare and endangered
6 species habitat, and I know they had to be stopped from
7 doing that. So that's --

8 MR. ROBINSON: Well, you need supervision.

9 MR. CLARK: You just don't want people going out
10 and doing stuff.

11 MR. ROBINSON: There are people on this staff that
12 know a rare plant from a common plant. So when I set
13 the people in Brewster up, I said, "This is a pitch
14 pine. This is a scrub pine. You don't have to take out
15 the scrub pine. They'll never get higher than three
16 feet high. So NStar's not worried about that. Pitch
17 pines they worry about. Tree oaks they worry about, but
18 highbush blueberry, they're not worried about that.
19 They're not worried about any of the ground covers."
20 It's just these trees that could potentially interfere
21 with the wires, and that's the only thing that's --

22 MR. DELANEY: Bill?

23 MR. CLARK: I also serve on the Massachusetts
24 Pesticide Board, and I know they go through an awful lot

1 of scrutiny. A lot of time goes into training and
2 regulatory hurdles they have to go through before they
3 get to this point. There's a five-year -- you asked how
4 do you comment. There's a five-year operational plan.
5 There's a yearly operational plan. The chairman just
6 mentioned that Senator Wolf had to extend it by 45 days,
7 so there are opportunities to comment. I guess the
8 selectmen, the board of health, and the conservation
9 commission in every town get a copy of the plan. So
10 there's ample -- it's a very democratic process. It's
11 an opportunity to speak.

12 MR. DELANEY: Okay, well, I think we've surfaced an
13 issue that we'll talk about again. I think there's a
14 little growing -- I sense there's some continued concern
15 about this application of pesticides, whether it's NStar
16 or anyone else. We hear the Park Service has done and
17 has reduced a tremendous amount of use of chemicals
18 throughout its whole operation as it weans itself.
19 We've also heard the dilemma -- you know, it's a
20 dilemma, but the process George has to go through when
21 confronted with telling NStar yes or no.

22 But I think we shouldn't just leave this as it is.
23 I think maybe it's worth bringing this back up again.

24 MR. ROBINSON: We can see if there's a

1 demonstration project that we could do, if nothing more
2 than to just lead by example to show that there are some
3 very sensitive areas, and that we could have some
4 training to supervise volunteers.

5 MR. DELANEY: Well, perhaps we could bring this
6 back up at our next meeting and have a little more --
7 we've been talking anecdotally for a large part right
8 now. Maybe, if, again, Mark, I know, or Bill, a few of
9 us could put together a little summary of what has
10 happened so far, what are some of the pilot projects
11 that have happened, show those successes. Just a little
12 bit -- not a long report but enough to give us something
13 to kind of react to, and maybe eventually a
14 recommendation might come out of that that we can make
15 to the Park.

16 George?

17 MR. PRICE: The only other point that I want to
18 make is right now we spend an inordinate amount of
19 energy with volunteers doing projects in the field. So
20 we have the Friends that work on the trails. We have
21 the Friends and AmeriCorps that work on the fire group.
22 We have AmeriCorps and all kinds of volunteers that work
23 with Lauren on the ponds. It requires an amazing amount
24 of supervision from our end in order to accomplish any

1 of these things. It is not just somebody sending
2 somebody out saying, "Do this and not that." It
3 involves scientists. It involves planning. It involves
4 sometimes compliance. It involves coordination with the
5 local town, all that sort of stuff. So that's what
6 we're doing with our energies in order to get some
7 heathland restoration, some cultural resource goals
8 done, all the things that we're doing to support the
9 Park Service mission with the Friends, especially with
10 the trail work, in order to get visitor access to a lot
11 of these places or to vista management.

12 We have a tremendous long list of stuff that's, of
13 course, the Park goals. If another group wants to come
14 along and work with NStar to work on the right-of-ways,
15 I'm not going to object to that as long as they also
16 meet all the requirements that both NStar would require
17 and we would require in order for a volunteer group to
18 work on these properties. But to divert all of that
19 energy to this, I just think is a management decision
20 that I would have a big problem with.

21 MR. ROBINSON: I don't think we want to divert the
22 energy. I think we want to increase the capacity of
23 volunteers, and I think there are volunteers that will
24 be attracted to this particular project that they

1 wouldn't be to clearing a trail or building stairs.

2 MR. DELANEY: I get that sense too.

3 Okay, Lauren?

4 MS. McKEAN: Just to complete, I know that when
5 they came to us in about 2008 to do the pesticides, that
6 Dave Crary and the fire crew did the whole Marconi area
7 so that you see all the way down the right-of-way from
8 Wellfleet to the Eastham town line. They did a lot of
9 clearing out back then so that pesticide application
10 would not be needed.

11 There's really not that much right-of-way within
12 the Park. If we look, it's pieces and patches. In
13 other words --

14 MR. ROBINSON: Great, you're making my point.

15 (Laughter.)

16 MS. McKEAN: And there's another chunk up north in
17 the northern part of Wellfleet, but there's a lot of
18 town-owned. There are some private land spaces.
19 There's not a really large amount that would lead to --

20 MR. REINHART: You said all through Eastham is all
21 on the other side?

22 MS. McKEAN: All the way down from here
23 (indicates). If you look left as you're leaving the
24 meeting today, you can see that it's very clear.

1 MR. DELANEY: So maybe without actually going to
2 form a subcommittee at this point, Tom and Mark and
3 maybe a few people that are interested might -- if you
4 put your heads together between now and our next meeting
5 and see if you can kind of generate a proposal or a
6 couple of options that might be considered with all the
7 caveats that George put on the table, not diverting --
8 volunteer help, using the precautionary principle
9 dovetailing Park land with town land, proper training,
10 proper (inaudible). There are a lot of management
11 issues that would have to be addressed, but that would
12 be welcomed.

13 **DATE AND AGENDA FOR NEXT MEETING**

14 MR. DELANEY: Okay, speaking of the next meeting
15 then, that would be typically April.

16 MR. PRICE: How about April 14?

17 MR. DELANEY: That's the date I had penciled in my
18 calendar. Is that all right with everybody else?

19 MS. AVELLAR: Sure.

20 MR. DELANEY: Okay, it shall be.

21 **PUBLIC COMMENT**

22 MR. DELANEY: And now the intrepid public who have
23 stuck with us through all of this time, we turn the
24 floor over to you. Any comments on any topics related

1 to the Cape Cod National Seashore from any of the
2 public?

3 Lilli?

4 AUDIENCE MEMBER (LILLI GREENE): Lilli Greene,
5 Wellfleet.

6 I just want to say that I am very impressed with
7 what happened here today. And, Mark, hats off to you
8 for making this proposal and, George, for you to agree
9 to collaborate with that plan. I'm very impressed with
10 that.

11 And, Maureen, thank you from the public, the one or
12 two people, three people that are from the public, for
13 all of your hard work and your committee's hard work on
14 the report, whatever the document is called that we'll
15 get to see momentarily.

16 And I appreciate being able to be here to make
17 these comments. Thank you.

18 MS. BURGESS: Thank you.

19 MR. DELANEY: Thanks, Lilli.

20 Any other comments?

21 (No response.)

22 **ADJOURNMENT**

23 MR. DELANEY: Hearing none, I'll accept a motion to
24 adjourn.

1 MS. AVELLAR: So moved.

2 Second?

3 MR. REINHART: Second.

4 MR. DELANEY: All those in favor, say aye?

5 BOARD MEMBERS: Aye.

6 MR. DELANEY: Thank you very much.

7 (Whereupon, at 3 p.m. the proceedings were
8 adjourned.)

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REPORTER'S CERTIFICATE

PLYMOUTH, SS

I, Linda M. Corcoran, a Court Reporter and Notary Public in and for the Commonwealth of Massachusetts, do hereby certify that:

The foregoing 70 pages comprises a true, complete, and accurate transcript to the best of my knowledge, skill, and ability of the proceedings of the meeting of the Cape Cod National Seashore Advisory Commission at Marconi Station Area, Park Headquarters, South Wellfleet, Massachusetts, on Monday, February 3, 2014, commencing at 1:06 p.m. with recorded proceedings commencing at 1:35 p.m.

I further certify that I am a disinterested person to these proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal this 31st day of March, 2014.

Linda M. Corcoran - Court Reporter
My commission expires:
August 28, 2020